

PYRITHIONE BIOCIDES ENHANCED BY SILVER, COPPER, OR ZINC IONS

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ABSTRACT OF THE DISCLOSURE

The present invention is directed to an antimicrobial composition, comprising pyrithione or a pyrithione complex; and a zinc or copper or silver source selected from the group consisting of zinc or copper or silver salts, oxides, hydroxides, sulfates, chlorides, metals, and combinations thereof; wherein the weight ratio of the zinc or copper or silver source to the pyrithione or the pyrithione complex is in the range from about 1:300 to about 50:1, and wherein the antimicrobial composition has an enhanced biocidal effect against a variety of free-living microorganisms or biofilms. Also disclosed is a method of inhibiting the growth of free-living microorganisms or biofilm utilizing the above antimicrobial composition, as well as use of such antimicrobial compositions in various products including fuels, fluids, lubricants, coatings, adhesives, sealants, elastomers, soaps, cosmetics, plastic or woven or non-woven fibers, pharmaceuticals, and as preservatives for the above products.